



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

27, Ballygunge Circular Rd, Kolkata- 700019



Term: Second

Date: 10.12.20

Subject: Science

Class: 4

Lesson: Air, Water and Weather

Topic: Water Cycle, Purification of Water

ANSWER WORKSHEET – 23

Answer the following questions in detail:-

1. What is water cycle?

Ans: The water cycle is a continuous cycle of how water returns back to the earth. The water cycle never ends and we could be using the same water that dinosaurs used millions of years ago. Water falls as precipitation. There are 4 types of precipitation: - rain, snow, sleet and hail. The sun powers the water cycle. The sun heats up the water from rivers, lakes, oceans etc. and the water evaporates and turn into water vapour. The water vapour travels up into the atmosphere. As the atmosphere gets cooler, the water vapour turns back into water droplets as condensation. These water droplets form clouds and are powered by the wind. When the clouds get too heavy, the droplets fall as precipitation. The water falls as rain, snow, sleet or hail. When the water hits the earth it becomes runoff (water that runs down hills and mountains, water that moves on top of the earth's surface) or groundwater (water that gets absorbed by the ground and runs underneath the earth's surface). Both runoff and groundwater are similar because the water moves towards rivers, seas and oceans.

2. What is sedimentation and decantation?

Ans: Sedimentation and decantation method are used to separate a mixture containing insoluble solids in a liquid. In this method, the mixture is allowed to stand undisturbed for some time. The insoluble solid substances settle down and clear liquid is left standing. This clear liquid is called supernatant liquid or decanted water. The solid substances that settle down are called sediment. This entire process is known as sedimentation. The clear water (decanted water) is then poured out carefully into another beaker or container, leaving the sediments undisturbed. This process is known as decantation.

3. How to use drinking water correctly?

Ans:

- Keep drinking water in covered vessels.
- If you are using water stored in bottles, make sure to close the cap every time after we pour out water. In case you prefer to sip directly from bottles, keep one aside for personal use for hygiene purpose and to avoid cross contamination.
- While fetching water from a gallon or drum, make sure that you don't dip your fingers directly into it. There are specialised long handled cups available to help you to take out water. However, make sure to wash it inside out before you dip it into the gallon or drum. To make things simpler, try buying drums that come with a tap attached to avoid contamination.
- In case you store water in a mud-pot, like it was done in olden days, ensure that you empty the container fully before you start to store. This will ensure that there are no contaminants at the end of the vessel.
- Keep the buckets and containers covered if the water has to be used after sometime. This will prevent breeding of mosquitoes. Avoid using water that had been kept in the open for a long time.

4. What is chlorination?

Ans: Chlorine is a powerful chemical that has been in use for many years to treat water for home consumption. Chlorination is an effective water purification method that kills germs, parasites and other disease-causing organisms found in ground or tap water. Water can be purified using chlorine tablets or liquid chlorine and it is cheap and effective. However, caution should be taken when using chlorine liquid or tablets to treat drinking water. For example, people suffering from thyroid problems should talk to a medical practitioner (a doctor who practices medicine) before using the product. When using chlorine tablets, it is important to apply them in heated water, as they dissolve well at 21 degree Celsius or higher. Chlorine tablets kill all bacteria leaving the water clean and safe.

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